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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,139	02/27/2004	Kevin P. Connors	ALTU-1110	9270

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SAN FRANCISCO, CA 94111

EXAMINER	
JOHNSON III, HENRY M	
ART UNIT	PAPER NUMBER
3739	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/789,139	CONNORS ET AL.	
	Examiner	Art Unit	
	Henry M. Johnson, III	3739	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 November 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *15-17,19-24,26,33,34 and 36-43* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *15-17,19-24,26,33,34 and 36-43* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 August 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Arguments

Applicant's arguments filed November 17, 2006 have been fully considered but they are not persuasive. As referenced by the Applicant, Altshuler 3042 teaches the cooling may be electronically controlled. A skilled artesian knows that such control may be via a simple timer or feedback mechanism such as a temperature sensor and typically provides for a means of notification that the process has ended. Indicator lights and audible tones are known and obvious. The examiner holds that Altshuler 3780 does indeed inherently teach cooling for a predetermined period of time. Without such inherent teaching, the cooling would continue indefinitely, clearly a non-realistic and unacceptable methodology.

Claim Objections

Claim 22 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Continued cooling after termination of he light is a limitation in the base claim.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 34, 37-39 and 42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 38 recites the limitation "the visual indication" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

Claims 34, 37 and 39 are indefinite for being dependent on a cancelled claim.

Claim 42 recites the limitation "the handpiece" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 15-17, 19-24, 26, 38 and 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication US 2004/0093042 to Altshuler et al. ('3042) in view of U.S. Patent Application Publication US 2002/0173780 to Altshuler et al. ('3780). Altshuler et al. '3042 teach a method and apparatus for treating tissue (non-invasive wrinkle removal) in a region at depth by applying optical radiation thereto of a wavelength able to reach the depth of the region and of a selected relatively low power for a duration sufficient for the radiation to effect the desired treatment while concurrently cooling tissue above the selected region to protect such tissue (abstract). The irradiation source (Fig. 1, # 1) may be a

radiant lamp, a halogen lamp, an incandescent lamp, an arc lamp, a fluorescent lamp, a light emitting diode, a laser (including diode and fiber lasers), the sun or other suitable optical energy source (paragraph 0044). Cooling is provided by a contact plate (Fig. 1, # 8) and may be made out of a suitable heat transfer material, and also, where the plate contacts tissue, of a material having a good optical match with the tissue. Sapphire is disclosed as an example of a suitable material for the plate. In some embodiments, the contact plate may have a high degree of thermal conductivity, for example, to allow cooling of the surface of the tissue by cooling mechanism (paragraph 0050). The irradiation time may vary from approximately 2 seconds to approximately 2 hours (paragraph 0012). The treatment times overlap those claimed and one skilled in the art would use a time appropriate to achieve the desired temperature based on the operating parameters of the radiation source. Cooling may be applied concurrently with the irradiation or prior to irradiation (paragraph 0011). The cooling of the epidermal layer in conjunction with irradiation inherently yields an inverted temperature gradient. Sensors or other monitoring devices may also be embedded in cooling mechanism, for example, to monitor the temperature, or determine the degree of cooling required by tissue, and be manually or electronically controlled (paragraph 0051). A skilled artesian knows that such control may be via a simple timer or feedback mechanism such as a temperature sensor and typically provides for a means of notification that the process has ended. Indicator lights and audible tones are known and obvious. Altshuler et al. '3042 further teach an irradiation wavelength of from 1050 to 1250 nanometers (paragraph 0010), which is well known to penetrate tissue from about 2-5 millimeters. A filter (Fig. 1, # 3) is included for wavelength selection. Altshuler et al. '3042 do not disclose cooling after termination of the treatment radiation. Altshuler et al. '3780 teach an apparatus and method for irradiating tissue with a cooled waveguide for cooling the tissue before, during and after irradiation. This clearly teaches a predetermined time after irradiation termination or the cooling would continue indefinitely. It would have been obvious to one skilled

in the art to continue cooling the tissue following radiation as taught by Altshuler et al. '3780 in the method of Altshuler et al. '3042 to protect the surface tissue during the treatment process. Both teach the importance of cooling to avoid damage to peripheral areas and it is considered obvious that one skilled in the art would continue cooling to limit such damage.

Claims 33 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication US 2004/0093042 to Altshuler et al. ('3042) in view of U.S. Patent Application Publication US 2002/0173780 to Altshuler et al. ('3780) as applied to claim claims 15 and 23 above and further in view of U.S. Patent 6,120,497 to Anderson et al. Neither Altshuler et al. '3042 nor Altshuler et al. '3780 disclose the specific temperature at which collagen shrinks. Anderson et al. teach a method for treating wrinkles with radiation at depths from 100 microns to 1.2 millimeters (overlaps claim depth) using laser or incoherent radiation (abstract). Anderson et al. specifically disclose the known property of collagen to shrink at temperatures from 60°C to 70°C. It would have been obvious to one skilled in the art to heat the target tissue to at least 60°C using the teaching of Anderson et al. in the method of Altshuler et al. '3042 in view of Altshuler et al. '3780 as Anderson et al. clearly suggest that temperature is required to shrink collagen.

Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication US 2004/0093042 to Altshuler et al. ('3042) in view of U.S. Patent Application Publication US 2002/0173780 to Altshuler et al. ('3780) as applied to claim 15 above and further in view of U.S. Patent 5,885,274 to Fullmer et al. The Altshuler et al. teachings are discussed above, but do not teach the importance of the temperature of the filament. Fullmer et al. disclose a filament lamp for use in dermatological treatments including the use of a simmer voltage to maintain the temperature of the filament to allow faster rise time of the light pulses and to enhance the short pulses by the filament being in a warm condition (Col. 7, lines 42-45). It would have been obvious to one skilled in the art to use the simmer pulse (long pulse) as

taught by Fullmer et al. in the method of Altshuler et al. '3042 in view of Altshuler et al. '3780 to improve the efficiency of the light source pulse integrity as suggested by Fullmer et al.

Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication US 2004/0093042 to Altshuler et al. ('3042) in view of U.S. Patent Application Publication US 2002/0173780 to Altshuler et al. ('3780) as applied to claim 15 above and further in view of U.S. Patent Application Publication US 2005/0107850 to Vaynberg et al. The Altshuler et al. teachings are discussed above, but do not teach control of the light source using detected light from the source. Vaynberg et al. disclose a method and system for skin rejuvenation by heating collagen (paragraph 0037) using light from a non-coherent source. The light source is controlled using a light sensor (Fig. 1, # 135) that provides feedback to a controller (Fig. 1, # 130) to alter the pulse parameters (Paragraph 0018). It would have been obvious to one skilled in the art to use the optical feedback as taught by Vaynberg et al. in the method of Altshuler et al. in view of Altshuler et al. '3780 to provide positive control of the treatment parameters.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry M. Johnson, III whose telephone number is (571) 272-4768. The examiner can normally be reached on Monday through Friday from 6:00 AM to 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C. Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Henry M. Johnson, III
Primary Examiner
Art Unit 3739

HENRY M. JOHNSON, III
PRIMARY EXAMINER